

~~(c) maintaining the feedstock and catalyst system in the reactor under conditions to produce a reactor effluent comprising diluent, unreacted olefins, olefin trimerization products, catalyst and heavies;~~

~~(d) transferring reactor effluent comprising diluent, unreacted olefins, olefin trimerization products and heavies from the reactor to a first separator wherein the reactor effluent is separated into (1) catalyst and heavies, (2) diluent and (3) unreacted olefin and trimerization products;~~

A3 ~~(e) removing from the first separator a stream that is predominantly catalyst and heavies;~~

~~(f) removing from the first separator a predominantly diluent stream and~~

~~(g) removing from the first separator a stream that is predominantly unreacted olefin and trimerization products.~~

Remarks

The interview courteously granted Applicants' Attorney on September 1, 1999, is hereby acknowledged with appreciation. In accordance with the understanding of Applicants' Attorney at that interview claims 1-6 have been amended, claims 7-11 have been canceled without prejudice and claims 12-21 have been added. Claims 1-6 and 12-21 are currently in the application for examination.

Applicants respectfully request that the correction of the drawings be held in abeyance until allowable subject matter is found in the claims.

A brief description of the drawings as set forth in 37 CFR 1.74 has been substituted for the description of the drawings that had appeared in the specification.

Claims 1-11 have been rejected under 35 U.S.C. 112. Claims 7-11 have been canceled thereby rendering rejections of those claims moot. Claims 1-6 have been amended to remove the language specifically rejected, to connect the structures of the claims in those claims and to particularly point out and distinctly claim the subject matter of the invention. The rejection of the amended claims under 35 U.S.C. 112 is respectfully requested to be removed.

Claims 12-21 have been added to positively claim the aspect of this invention that is a process for olefin trimerization as opposed to the olefin trimerization system claimed in claims 1-6. Since these additional claims fall within the fees paid for the original filing of this application no further payment of fees is offered. It is respectfully requested that claims 12-21 be examined in this prosecution.

Claims 1-2, 4-5 and 7-11 have been rejected under 35 U.S.C. 102(b) as being anticipated by Harandi et al. (4,788,366). This rejection of claims 1-6 as amended is respectfully traversed.

Claim 1 has been amended to point out that the reactor is operably connected by separate inlet lines to both a source of catalyst and a source of olefin reactant and that these two inlet lines are so arranged in respect to the reactor that the material transferred in these lines are thoroughly contacted in the reactor (see page 12, line 10 et seq. of the specification). Applicants urge that this patentably distinguishes over the disclosure of Harandi et al. because in that patent, as described in reference to FIG. 1, there is no "inlet line into said reactor from a source of catalyst" when the Harandi et al. reactor is taken as vessel 20 as set out in the Office Action. If the vessel 20 in FIG. 1 is taken as the "preferred reactor design as shown in FIG. 2" we are shown double reactor vessels with no real guide as to whether line 236 or line 256 corresponds to line 22

of FIG. 1 or, if whichever of the lines corresponds to line 22 what the second make line in FIG. 2 corresponds to in FIG. 1. In any event, it is evident from FIG. 2 that there is no separate catalyst inlet to either of the vessels because if either valve 229 or 248 is open, at least part of the feed to the reactor vessel is mixed outside of the vessel and enters the vessel as a mixed stream in a riser. The structure claimed as amended does not read on Harandi et al. so that the rejection of claims under 35 U.S.C. 102(b) as being anticipated by Harandi et al. (4,788,366) is, therefore, respectfully requested to be removed.

Claim 3 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Harandi et al. (4,788,366) in view of Lashier et al. (5,689,028). This rejection of the amended claims is respectfully traversed.

Lashier et al. are cited as disclosing that Applicants' catalyst can be deactivated by contacting the reactor effluent stream with a deactivating agent. There is no citation of disclosure in Lashier et al. that supplements the deficiency of Harandi et al. in not disclosing that the reactor is operably connected by separate inlet lines to both a source of catalyst and a source of olefin reactant and that these two inlet lines are so arranged in respect to the reactor that the material transferred in these lines are thoroughly contacted in the reactor. It is, therefore, respectfully requested that the rejection of claim 3 under 35 U.S.C. 103(a) as being unpatentable over Harandi et al. (4,788,366) in view of Lashier et al. (5,689,028) be removed.

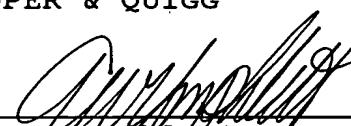
Claim 6 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Harandi et al. (4,788,366) in view of Mehra et al. (5,521,264). This rejection of the amended claims is respectfully traversed.

Mehra et al. are cited as disclosing that a solvent can be used to absorb ethylene, higher alpha olefin comonomers and

heavier hydrocarbons. There is no citation of disclosure in Mehra et al. that supplements the deficiency of Harandi et al. in not disclosing that the reactor is operably connected by separate inlet lines to both a source of catalyst and a source of olefin reactant and that these two inlet lines are so arranged in respect to the reactor that the material transferred in these lines are thoroughly contacted in the reactor. It is, therefore, respectfully requested that the rejection of claim 3 under 35 U.S.C. 103(a) as being unpatentable over Harandi et al. (4,788,366) in view of Mehra et al. (5,521,264) be removed.

In light of the amendments and remarks above, Applicants respectfully request (1) that the rejection of claims in this application be reconsidered, (2) that claims 1-6 be found allowable and (3) that claims 12-21 be examined and found allowable.

Respectfully submitted,
ROPER & QUIGG


A. W. Umpflett
Registration No. 25,935

AWU:aes
ROPER & QUIGG
Three Crystal Park
2231 Crystal Drive, Suite 410
Arlington, VA 22202
Telephone (703) 920-8910